THE AMERICAN JOURNAL
OF
OPHTHALMOLOGY.

VOL. XX. FEBRUARY, 1903. No. 2.

ORIGINAL ARTICLES.

AN OPERATION FOR ATROPHIC (CICATRICIAL) ENTROPIUM OF THE LOWER EYELID.

By ARTHUR E. EWING, M.D.,
ST. LOUIS, MO.

AT the annual meeting of the American Ophthalmological Society in 1900, I described a method of operating for atrophic entropium of the lower eyelid, which had yielded exceptionally fine, and as subsequent observation has shown, permanent results. The operation, as described, was a development of the operation devised thirty years ago by Dr. John Green for cicatricial (atrophic) entropium of the upper eyelid. The essential feature in this operation is a longitudinal incision through the tarsal conjunctiva and the tarsus, parallel to and from two to three millimetres distant from the line of the openings of the Meibomian glands. This incision, extending through the entire thickness of the tarsal tissue from its nasal to its temporal end, permits the whole marginal strip to be turned forward, to form a new lid margin of normal width and appearance; the gaping cut on the conjunctival aspect of the lid becomes filled with new tissue by which the height of the tarsus is permanently increased, often as much as two or three millimetres.

In the case of the lower lid the operation leaves much to be desired, owing to the very great difficulty in keeping the tarsal incision widely open during the progress of the healing. To obviate this difficulty I devised the plan of dissecting the tarsal conjunctiva from the tarsus, from a little behind the openings of the Meibomian glands in a width of about five millimetres, and stitching the loosened conjunctiva into the bottom of the tarsal incision. Since reporting my procedure in 1900, I have made several improvements in the way of simplifying the operative technique, and in the manner of inserting the sutures.

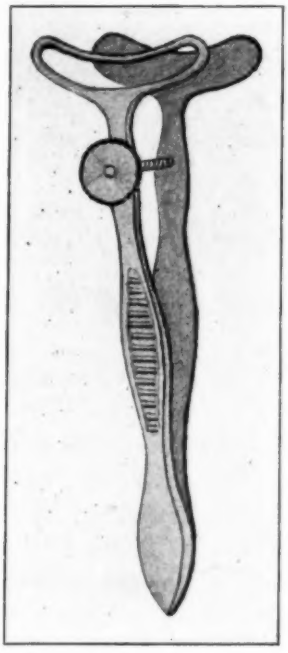

FIG. 1.

As an aid in everting the lower lid I employ a modification of the *pince anneau* of Desmarres, as shown in Figs. 1 and 2. The two blades are either flat or slightly curved in a direction opposite to that of the instrument of Desmarres; also the distal ends are modeled to the curvature of the lid margin. In applying the forceps the spatula blade is set against the dermal surface of the lower lid near the line of the cilia, and moderate pressure is made downwards and back-

wards. This everts the lid so that the fenestrated blade may be made to engage the conjunctival surface at the distance from the lid margin intended for the tarsal incision, usually two to two and one-half millimetres, as indicated by the dotted line in Fig. 2. The screw may then be tightened, or

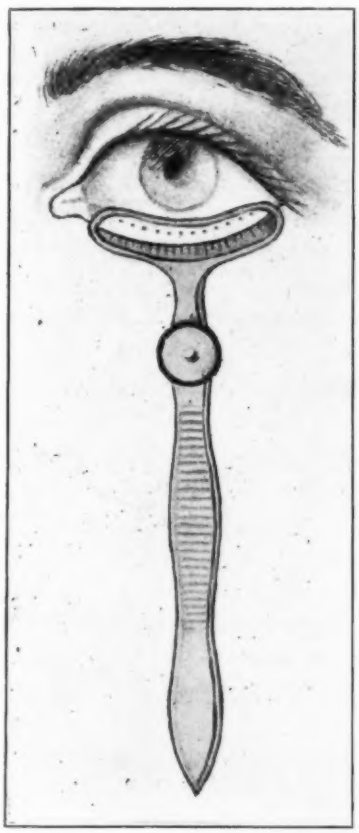

FIG. 2.

the forceps may be held firmly in position, while making the incision, which should be the full length of the lid and parallel with its margin. Care must be exercised not to cut entirely through the lid, and not to place the incision too far from its margin. In the latter case an excessive eversion might result. If, upon examination, the incision is found to be incomplete, it may be finished with a Graefe knife or a small bistoury. To do this easily and thoroughly the forceps may be removed, the blades closed with the fenestrated blade

upward, and (thus closed) again placed against the lid as was done with the spatula blade in the beginning. The margin of the lid is in this way rolled forward over the wire of the fenestrated blade, and, with the spatula blade serving as a support, the incision may be followed and deepened. It should be carried through the tarsus and underlying fascia, down to or a little into the muscular layer of the orbicularis, as shown in Figs. 3, 4 and 5, so that the muscle is exposed throughout the entire length of the wound.

FIG. 3.

FIG. 4.

After the incision of the tarsus has been completed the partially detached marginal strip may be turned forward by means of toothed forceps, but with less injury to the tissues and more effectually by inserting either a single thread near its centre, or two or three threads, as indicated by *a*, Figs. 4 and 5. By pulling forwards upon these threads the incision

is drawn widely open, exposing the muscular layer and permitting the accurate placing of the sutures, *b*, Figs. 5 and 6.

FIG. 5.

FIG. 6.

FIG. 7.

These sutures, generally three in number, Fig. 7, are passed through the conjunctival edge of the cut, in the standing portion of the tarsus, and then through the marginal strip, being

entered at the bottom of the wound between the muscle and the detached cartilage, to emerge on the dermal surface in or a very little below the line of the cilia. The needle is then re-entered through the skin in the same horizontal line, about three millimetres distant from the first point of exit, and the suture is tied in the conjunctival incision, Fig. 6.* Should any part of the orbicularis muscle remain exposed, it should be covered by inserting intermediate sutures connecting the conjunctival edge of the standing portion of the tarsus with the bottom of the wound. The effect of the principal sutures, when drawn moderately tight, is to evert completely the entire marginal strip, as shown in Fig. 6. The cuticular surface of this strip, which had been previously turned against the eyeball, is brought again into its proper anatomical position, to form anew a palpebral margin of normal width and with a normally defined posterior angle. The exposed tarsus becomes covered with epithelium, to form a conjunctival surface continuous with that of the standing portion of the eyelid. For the sutures, fine silk (No. 1) carried by fine needles is used. Both should be thoroughly sterilized. After completing the operation the eye should be cleansed with a one-to-five-thousand corrosive sublimate solution, and bandaged. The following day it should be inspected, again cleansed with the sublimate solution and bandaged, and this should be continued daily until the sutures are removed, usually after from three to five days.

My first experience with this simplified method of operating dates back about eleven months, having been first tried in a case in which it proved impracticable to dissect up a conjunctival flap from the tarsus as described in my former paper. The result was in all respects perfect, and it has remained permanent. In two other cases a somewhat broad strip of skin had been previously removed by an operator in another city, apparently without the slightest beneficial effect. In a fourth case, in which the entropium had followed a burn of the conjunctiva and in which a previous incision of

*In placing these sutures I have also used a thread armed with two needles, tying the knot against the skin; the method described in the text has proved more satisfactory, as effecting a more perfect eversion of the lid-margin.

the tarsus combined with the excision of a strip of skin had proved ineffective, the operation was confined to the nasal half of the eyelid, and four principal sutures were inserted. In all four cases there is now an ideal lid margin, with restitution of the cilia to a normal position and direction; in no case has there appeared to be any tendency to relapse. In one case, in which only three principal sutures were employed, there was a slight superficial necrosis of the exposed tarsal tissue, which, however, did not at all impair the final result.

I have also operated by this method on the upper lid with uniformly excellent success.

NOTE BY DR. JOHN GREEN:—The longitudinal incision of the conjunctiva and tarsus, as a fundamental procedure in operating for organic inversion of the margin of the upper eyelid, suggested itself to the writer as an improvement on the *tarsotomia horizontalis s. longitudinalis* of von Ammon, in which operation a long horizontal cut was made through the entire thickness of the lid, to form a bridge which remained attached only at its temporal and nasal ends. The purpose of limiting the incision to the conjunctiva and tarsus was to conserve the vascular connections of the marginal strip through the orbicular muscle and the integument. The ideal results attained by this method in the restoration of the lid-margin to its normal position and direction, seemed to justify its publication in 1876, after sufficient time had elapsed to test the permanence of the cures. In this year the writer's attention was called to the fact that a similar incision had been proposed about three years before by Burow. A study of the operative surgery of the eyelids, as described by Celsus, Aetius, and Paulus Ægineta, showed beyond reasonable doubt that the incision in question was generally known and practiced during the first six centuries of the Christian era. Celsus describes the incision without giving it a name; the other authors mentioned, writing in Byzantine Greek, describe it under the name *ὑποτομή*, which in the Latin version of Aetius by Cornaro is translated, *subsectio*. The name *subsection* may therefore be properly adopted for this incision. The ancient writers state that it must be made deep, and that it must extend from one end of the lid to the

other. The *subsection* was generally combined with the excision of a crescent-shaped portion of integument from the front of the lid, after which the dermal wound was closed with sutures; hence the name *ἀναρραφή*, or sewing upward, although Celsus states explicitly that the tarsal incision may suffice without excising any skin. Burow's brief description of his procedure is almost a paraphrase of the description of the ancient authors, to whom, however, he does not refer. The writer's contribution to the subject consists in the insistance on the inutility, or worse, of the excision of any but a very narrow strip of skin; in the contention that such strip, if excised, should be taken very near to the margin of the lid, close to the row of eyelashes; in a particular manner of inserting the sutures; and in the employment of contractile collodion, painted along the cutaneous surface of the lid parallel to and near the lid-margin, as a substitute in many cases for the excision of even a very narrow strip of integument.

This operation, which gives admirable results when performed on the upper eyelid, has been almost always disappointing when tried upon the lower lid. The modifications devised by Dr. Ewing, particularly as shown in the simplified operation now described by him, make it possible to secure as perfect results in atrophic entropium of the lower lid as have been attained hitherto in operating on the upper lid.

A CASE OF PAPILLOMATOUS EPITHELIOMA OF THE SCLERO-CORNEAL JUNCTION.

By CHARLES J. KIPP, M.D.,

NEWARK, N. J.

MICROSCOPICAL EXAMINATION

By ADOLF ALT, M.D.

(Illustrated.)

TH. B., fifty-seven years of age, otherwise in good health, was first seen by me on April 29, 1902. He came to me on account of a new growth on the outside of his right eye. I found that the eye was free from injection and that its movements were unimpaired in all directions. At the sclero-corneal junction, on nasal side, was seen a yellowish-white

flat tumor, nearly circular in form, about 15 mm. in diameter, and about 5 mm. in height. The growth was firmly adherent to both cornea and sclera. It covered nearly one-half of the cornea. Its surface was uneven, and looked in fact like a wart with a very broad base. The cornea was apparently normal where it was not covered by the new growth. The pupil of the eye was slightly irregular, which was due to some stretched posterior synechiæ. It was active to light and of about the same size as that of the other eye. The iris was normal; the anterior chamber of normal dimensions. The fundus oculi was normal; S $^{5}/_{18}$. Fig. 1.

Very little could be learned of the patient's history; he had always been in good health and was now. His attention

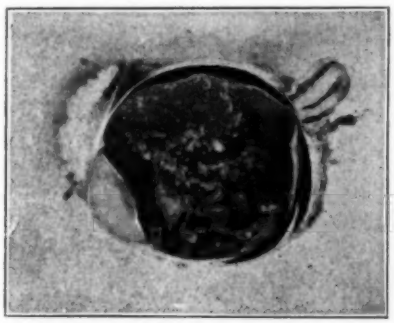

FIG. 1.

had been called to the growth on his eye about six months before he consulted me. Since then it had gradually grown to its present dimensions, and of late the eye had pained him more or less all the time. I advised enucleation, and this was done on May 17. The wound healed without much reaction, and he was discharged from the hospital about eight days later. After that I saw the man about once a week for the next three weeks. During this time he was in good health, but complained of a constant pain back of the right orbit, for which I could find no cause. There was nothing indicative of a recurrence of the disease about the orbit. About a month after the removal of the eye he had a violent fit, which his physician said resembled an epileptic seizure. The convulsion involved all parts of the body. Soon after

this convulsion he became violently insane; he tried to commit suicide and set fire to his house. He was taken to an insane asylum, where he was very violent, but had no return of the convulsion. He contracted dysentery in the latter part of August, and died on September 4, 1902. No autopsy was made.

I am indebted to his family physician, Dr. W. M. Brien, for the history of the case subsequent to the attack of convulsion.

COMMENT.

The apparently intimate connection between the neoplasm and the cornea and the sclerotic, the presence of posterior synchiæ which made me think that the iris and the ciliary body were becoming involved, and the rapid growth of the tumor seemed to me to call for an enucleation of the globe rather than extirpation of the new growth. Moreover, the well-known fact that growths of this nature almost always recur even after thorough removal and cauterization of the base, and the expressed desire of the patient to be relieved as quickly as possible of the pain, were strong arguments against an attempt to extirpate the tumor, a proceeding which, as the anatomical examination shows, would at least have been justifiable.

MICROSCOPICAL EXAMINATION

By ADOLF ALT, M D.

Dr. Kipp kindly gave me about one-half of the eye and tumor for examination. Its macroscopical appearance, showing numerous folds and indentations, at once struck me as that of an epithelial tumor, although the arrangement was not exactly as we see it usually in cases of epithelioma pure and simple. Fig. 2.

On section the tumor was found to consist of numerous papillæ consisting of a small amount of connective tissue in which in every instance one or two blood vessels are enclosed. Every such papilla is covered by an immense mantle of epithelial cells. The cells lying close upon the connective tissue papilla are cylindrical and stand in a regular row of several layers. Farther outward the cells are more flattened and evidently undergoing a regressive metamorphosis from pressure,

as they take up the stains but poorly; the outermost layers are perfectly flat and horny. Where the horny layers of the papillæ are pressed firmly against each other, large and smaller pearl nodules are quite frequent. From the primary papillæ some secondary and tertiary ones are branching out.

On closer examination it is seen that the connective tissue papillæ take their origin from a small amount of conjunctival tissue which underlies the whole tumor close up to its apex upon and near the center of the cornea. This seems to prove

FIG. 2.

that the tumor started from the conjunctiva and gradually grew over the cornea. Fig. 3 and 4.

At its corneal apex the epithelium of the last papilla passes over into a normal corneal epithelium.

The underlying conjunctival tissue shows a small amount of round cell infiltration, very much less though than is usual in cases of epithelioma. Nowhere can I find the beginning, even, of an arrosion of the scleral or corneal tissue and a tendency of the growth to invade these tissues. From this it seems apparent that the growth was not one of very marked malignancy—at least up to the time of the enucleation.

FIG. 3.

The other tissues of the eyeball, as far as included in my part of the eye, show nothing abnormal, except some senile atrophic changes.

When considering the histological character of this tumor we find two distinct points of interest. First, an undoubted

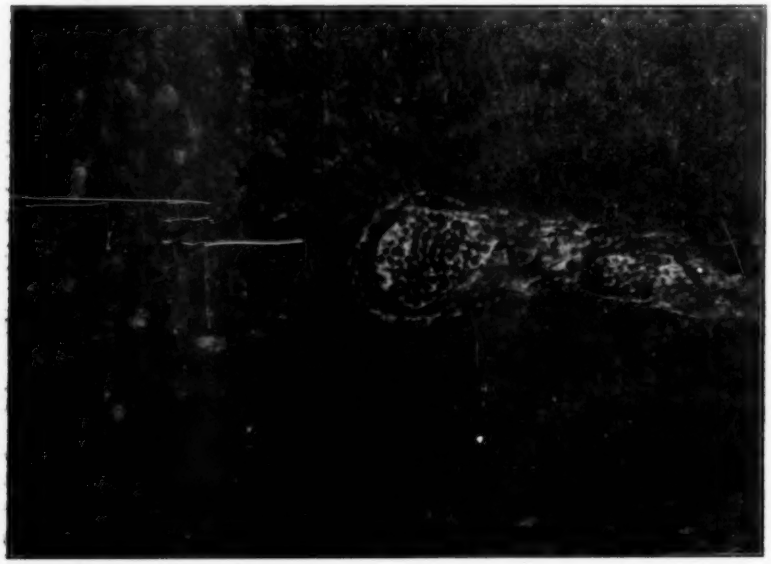

FIG. 4.

new formation of vascular papillæ, springing from the conjunctiva; second, an enormous amount of epithelial tissue covering these papillæ. It seems, therefore, that the growth was at first, perhaps, a simple papilloma, that, however, later on it assumed an epitheliomatous character which at the time of the enucleation had not as yet proven itself to be of the usual malignancy. It is evident from the loose connecnection between the growth and the underlying sclera and cornea (a small amount of conjunctiva severing it throughout from these membranes) that it might still have been removed with preservation of the eyeball.

Such papillomatous epitheliomata on the eyeball have been seen and described a number of times. Several authors (Gayet, Lagrange, Ayres and Demicheri) have described papillomata of the cornea even. In these latter cases there always remains a just doubt as to their real origin. It seems, to say the least, very hard to prove that such a growth has not taken its origin from the conjunctiva, although at the time of removal it seems to concern the cornea only.

I am still of the opinion that the corneal tissue proper never is the origin of such tumors.

A CASE OF CHRONIC ULCER OF THE CORNEA.*

By DAVID McKEOWN, M.A., M.D., M.Ch.,

Honorary Surgeon, Manchester Eye and Ear Hospital.

THE case is interesting from its duration. Its history extends over twenty-three months (sixteen of them within my knowledge), and cicatrization is not yet complete; from the extent of the ulcerated area—the entire surface of the cornea; from the marked difference in depth attained in different regions; from the progress of the ulceration, which in some parts may be said to have been regional; and from the degree of transparency which the cornea now presents. As such cases are somewhat rare, I thought a short statement of the facts and an inspection of the eye would not be unacceptable to you; at the same time I was not unmindful of the probable result of my addressing you—the bringing to light of some of the treasures of the rich experience of the mem-

*British Medical Journal.

bers of this Section. I may add that the few minutes at my disposal do not permit me to discuss the various questions which the case suggests.

The patient is a lady over 60, who came to me in March, 1901, with an affection of the right eye. She stated that she had had a severe attack of influenza in the previous June—that is, about nine months previously; that in August the eye trouble began without apparent cause; that there had been redness, intolerance of light, pain described as neuralgic, and a considerable amount of constitutional disturbance; that the eye had watered, but that there had never been any matter. There was a peripheral deep ulcer of the cornea on the inner side, about a line in breadth, and about one-fifth of the circumference of the cornea in length; it extended to the periphery of the cornea, and was situated about equally in the upper and lower quadrants.

The opinion I formed was that the ulcer was probably due to a lesion of the fifth nerve, the result of the attack of influenza. A statement volunteered some months afterwards by the patient gave some support to this view; it was to the effect that she had got considerably thinner, that her clothes had all to be tightened—an indication that the general nutrition had become impaired. The treatment prescribed (and continued until the present time) was (*a*) local bandage, unlimited hot bathing, antiseptic and stimulating lotions and ointments (chinosol, iodoform—which had to be discontinued—oil of cade, boracic acid); and (*b*) constitutional—aiming at improvement of the general health by attention to food, by general hygienic measures, and by drugs (iron, quinine, strychnine, and phosphorus).

Freedom from pain, and an improvement in general health, were soon reported, but some weeks elapsed before it was certain that the ulcer was healing; the reparative process, however, continued steadily although very slowly, and the eye showed no signs of further involvement until about July. At this time the upper part of the cornea (about one-fourth of the circumference) began to lose its normal appearance, becoming cloudy and vascular; the pathological process progressed so slowly that for weeks it was doubtful whether or not it would be arrested, but ultimately epithelial desquama-

tion took place over the whole area involved, and this aws followed by a large and comparatively deep ulcer. This new ulcerated surface also extended to the periphery of the cornea, but varied in width, ranging from about a line to a line and a half. It is not to be regarded as a simple extension—a gradual encroachment—of the first ulcer, but as arising from some cause or causes acting upon the whole area at one and the same time; the changes at a given moment did not appear to be more marked at the part nearest to the original ulcer than at a point a couple of lines distant.

During the earlier stage of the changes just referred to the reparative process continued in the original ulcer, but during the later stages ulceration once more set in, this time in the direction of the centre of the cornea. I have hitherto mentioned only the inner and upper parts of the cornea, and now have to speak of the lower and outer parts. These also became affected during the time of the involvement of the upper part, but the ulceration here was comparatively superficial, and extended gradually inwards from the periphery, the margin being traceable in the form of a thin somewhat sinuous grey line. At first the appearances were not marked, and therefore were more likely to escape observation, so that I limit myself to saying that the impression left on my mind was not that the ulceration gradually crept from the original ulcer, but that it involved at one and the same time a length of the periphery. The outer portion of the cornea was the last attacked. I had on several occasions considered the advisability of using the cautery, but not understanding in what way any destructive agency or interference could act benecially I refrained.

Other measures, however, having failed, the cautery was employed as a last resort, but apparently without advantage. In November the greater part of the surface of the cornea had been attacked; only an islet in the centre, with an extension outwards, had escaped. At my request the patient, who had declined previous suggestions to that effect, consented to have further advice, and I then had the satisfaction of a consultation with Dr. Little, who also saw the patient a second time in April last. At the latter date the whole surface of the cornea had become involved, and had been so for

about nine weeks. A week ago cicatrization was all but complete; only a small area in the temporal region remained unhealed.

There is some exudation in the pupillary area with posterior synechiæ which may render an iridectomy desirable. Atropine cannot be employed, and the patient will not consent to operation unless it become imperative. With such a history what should be the present condition of the cornea as regards transparency? There are no dense opacities, no great vascularity; and, indeed, it would seem that the impairment of transparency will not be very marked. Moreover, the cornea gives no sign that it has suffered much more severely as to depth in the inner and upper regions than in the lower and outer.

How is this condition of transparency to be accounted for? What has been the influence of the slow rate of repair, and of the topical applications, especially chinosol? I think this case should not be classed as a "rodent ulcer." In a prolonged and disheartening case like the present the surgeon may have two tasks—to treat the disease and to manage the patient; and the latter may be the more difficult and, indeed, at times the more important, as a refractory patient may bring about failure where the treatment should ensure success. It would he impossible to find a patient more desirable in respect to management, indeed her business since she came under my care has been looking after her eye, and the satisfactory condition of the cornea is largely due to her unremitting perseverance.

NOTES ON FORTY CASES OF EXTRACTION OF THE LENS IN CASES OF HIGH MYOPIA.*

By ADOLPH BRONNER, M.D.,

Senior Surgeon to the Bradford and Ear Hospital; Laryngologist to the Bradford Royal Infirmary.

THE question of the removal of the lens in cases of a high myopia has been so frequently and thoroughly discussed during the last few years that I feel quite reluctant to bring it before you again to-day. For some reason or other, however, the operation is not performed so frequently in this country as on the Continent, possibly because cases of high myopia are less common, and also because there is among the public a more or less justifiable aversion to any operative interference.

There is still a great difference of opinion as to the nature of the cases on which we should operate, and on the results of such operations. Most surgeons, I think, agree that we should not remove the lens in cases under —16 D. But there are numerous exceptions to this rule. For instance, those cases in which the use of correcting glasses causes severe pain, or only affords a moderate amount of vision, or when the nature of the patient's occupation or his personal vanity exclude the use of glasses; and, lastly, in the case of children, where the myopia is hereditary and progressive. In most of such cases I only operate on one eye. I have removed the lens in four cases of —9 and 10 D., in which glasses caused intense pain, and in one case in which a man, a clerk, with —12 D., could not with any correcting glasses see well enough to keep his books. Four outdoor laborers with —9 and —13 D. were enabled to follow their occupation much better after removal of the lens. One man with progressive myopia of —12, who was employed at a foundry, was unable accurately to strike the hammer when wearing glasses; after operation he could see much better. Five ladies with —9 and —12 D. refused to wear glasses, and were much more comfortable after extraction of one lens. In three cases of progressive myopia I removed the lenses when the myopia had reached —12 D. There was no further increase of the myopia.

*British Medical Journal.

Should we operate when one eye is practically emmetropic and the other very myopic? Certainly, because experience has proved over and over again that the myopia in these cases is generally progressive and is attended with much asthenopia. I have operated on three such cases. In two the myopia, which had been progressive, became stationary, and in the third it did not increase very much. Should we remove both lenses in ordinary cases of high myopia?

In children I prefer to remove both, and in adults only one, and to wait a year or two before touching the other eye. Of course if there should be the slightest signs of diplopia or strabismus, or increase of the myopia or asthenopia, the second eye should be operated on at once.

The advantages of the operation are so very obvious, and have been discussed so frequently, that I will not dwell upon them. I am sure that there are a very large number of cases of high myopia, especially outdoor laborers, who, although they can see fairly well with correcting glasses, would see much better, and be much more comfortable and better able to follow their employment, if one or both lenses were removed.

There can be no doubt that the operation is attended with a certain amount of risk, although some authors calmly state that this is not the case.

Septic infection certainly should not occur often, but numerous cases have been recorded. I have not had a single case of sepsis in any of my cataract operations during the last eight years, and these number many hundreds. It is most difficult to prove if the extraction of the lens predisposes to detachment of the retina or not. Pflüger has only seen one case of detachment after 140 operations for high myopia, and these patients have been under observation for at least four years. Whereas Mooren states that in 5,631 cases of high myopia, with central choroidal changes, which were not operated on, the retina ultimately became detached in 1,286 cases, or nearly 23 per cent. Out of my 40 cases detachment occurred in two, both children under 16, and six and fourteen months after the operation.

Then there is the danger of glaucoma. This may occur not only after discission of the lens, but also (and these are

the dangerous cases) after linear extraction and discission of the capsule. I have observed it in no fewer than four cases which occurred two or three weeks after the final operation. It is, therefore, of the greatest importance that all cases, especially of adults, should be carefully watched for at least six weeks. In three of these cases iridectomy removed all the symptoms, and in one there was slight permanent cupping, and the vision was only $^6/_{24}$, with contracted field. Similar cases have not been frequently recorded, and I should be glad to hear from the members present if they are of common occurrence.

In two of my cases, both after discission of the capsule and some weeks after the removal of the lens, thick floating opacities appeared in the vitreous, and the vision was permanently damaged. I do not believe that this was due to infection at the time of operation. Both were pale, unhealthy looking girls, and one of them certainly syphilitic.

The distant vision after removal of the lens is, in my experience, very rarely quite as good as one would expect; $^6/_6$ is very unusual, and $^6/_9$ not very common. The near vision, however, is better in most cases.

Some surgeons refuse to operate when there are any central choroidal changes. In 12 of my cases there were well-marked changes, but in no case did these increase, or could I find any fresh retinal or choroidal hæmorrhages after the operation. The vision also improved in a most unexpected manner. In six of these 12 cases the vision was $^6/_{36}$, or less before the operation with correcting glasses, whereas it improved to $^6/_{18}$, and in one case to $^6/_9$, after removal of the lens.

I have only careful records of the fields of vision of eight of my cases, and in six of these there was, after six or eight months, a distinct increase of the temporal half of the field, especially for colors.

As regards the methods of operation, I think most surgeons perform discission of the lens and remove as much of the lens matter as possible at the same time. In some cases a second linear extraction became necessary, but the danger of glaucoma and cyclitis is certainly much less than if we only do discission, and then extract in a few days. We should

be careful not to damage the posterior lens capsule, and to avoid even the slightest loss of vitreous. After the age of 38 or 40 we should perform the ordinary operation for extraction of senile cataract with iridectomy. We know that in cases of high myopia the nucleus of the lens is not so dense as in ordinary eyes.

Mr. Devereux Marshall thought that considerable risk was incurred if a myopic eye were operated upon with an emmetropic one on the other side. Sympathetic inflammation, though rare, might come on, and he could not see what benefit it would be to have the lens removed, for the two eyes would never work together, and he considered the risk involved was altogether out of proportion to the gain that could be expected.

Dr. Hill Griffith had a very alarming case of acute glaucoma supervene some time after a straightforward and successful evacuation of broken-up lens substance. After iridectomy a perfect recovery with good vision took place. His experience, though not large, was good, and he should probably be inclined to do the operation more frequently.

Mr. Holmes Spicer said he had had gratifying results, but the patients were always more pleased and got greater help out of the first eye than when the second was done. They appeared to be able to read better with only one eye than when the two were operated upon.

Mr. Charles Wray said he had been discouraged in the operation on account of the adverse expression of opinion which had been obtained when he read a paper on the subject some years ago before the Ophthalmological Society. He described a case of posterior lenticonus in which the lens subsequently became opaque, and after removal of the cataract the vision became quite good. In another case the eye supurated. He had seen the tension of these eyes improve after the operation.

CORRESPONDENCE.

WESTERN OPHTHALMOLOGIC AND OTO-LARYNGOLOGIC ASSOCIATION.

CINCINNATI, January 17, 1903.

Editor AMERICAN JOURNAL OF OPHTHALMOLOGY:

Dear Doctor:—The enclosed is a list of the names of those members of the Western Ophthalmologic and Oto-Laryngologic Association who will participate in the program at the next regular meeting, to be held at Indianapolis, Ind., April 9, 10, 11, 1903. The subject selected by each will be found accompanying his name.

The exact order of papers will be arranged later on by the program committee, but most likely the morning session of the first day of the meeting and the afternoon session of the last day will each be a joint session, when a full attendance is requested and expected. The official and final program will appear shortly before the date of the opening session.

The Ophthalmic papers, covering as they do a wide range of topics of vital interest and importance to the every-day ophthalmic surgeon, will be of rare interest and full of profit, while the papers presented to the Oto-Laryngologic Section will be *exceptionally good*.

The committee will so arrange the program that there will be ample time for full discussions. All may anticipate the most interesting and profitable meeting in the history of our Association.

Lively interest is being manifested in our rapidly growing organization, and to all who are eligible for membership we extend an open-handed and cordial invitation to join our ranks.

Applications for membership should be made to the Secretary,

DR. DERRICK T. VAIL,
22 W. Seventh Street, Cincinnati, O.

PRELIMINARY PROGRAM.

Ophthalmologic.

1. Episcleritis. Dr. Adolf Alt, St. Louis, Mo.

2. Keratoconus: Etiology, Early Diagnosis and Treatment. Dr. J. A. L. Bradfield, LaCrosse, Wis.

3. Some Experiences in the Operation for Complicated Cataract. Dr. J. E. Brown, Columbus, O.

4. Hysterical Amblyopia, with Report of Cases. Dr. A. E. Bulson, Jr., Ft. Wayne, Ind.

5. Clinical Experiences in the Management of Phoria Patients: Failures and Successes. Dr. J. Elliot Colburn, Chicago, Ill.

6. Degenerate Ocular Changes Resulting from Consanguinity of Parents. Dr. Lee Wallace Dean, Iowa City, Ia.

7. Electro-Cautery Treatment of Wounds and Ulcers. Dr. Jno. A. Donovan, Butte, Mont.

8. Series of Glaucoma Cases. Dr. Geo. F. Fiske, Chicago, Ill.

9. Some Points in the Operation for Cicatricial Ectropium. Dr. Ferd. C. Hotz, Chicago, Ill.

10. Blepharitis Marginalis. Dr. Dudley S. Reynolds, Louisville, Ky.

11. Sarcoma of the Choroid. Dr. W. S. Samson, Lancaster, O.

12. Rare Ocular Lesions in Scarlatina. Dr. E. O. Sisson, Keokuk, Ia.

13. The Influence of Environment on the Eye. Dr. Hamilton Stillson, Seattle, Wash.

14. Paresis and Paralysis of the Muscle of Accommodation. Dr. Geo. F. Suker, Chicago, Ill.

15. Monocular Triplopia. Dr. Cassius D. Wescott, Chicago, Ill.

16. Retrobulbar Optic Neuritis. Dr. W. H. Wilder, Chicago, Ill.

17. Exsection of the Tarsus in Certain Forms of Chronic Trachoma. Dr. Casey A. Wood, Chicago, Ill.

Oto-Laryngologic.

1. President's Address. Dr. Wm. L. Ballenger, Chicago, Ill.

2. Superheated Medicated Air in Diseases of the Nose and Ear. Dr. J. C. Beck, Chicago, Ill.

3. Progress in Otology in Fifty Years Past. Dr. Fayette C. Ewing, St. Louis, Mo.

4. Report of Cases of Laryngeal Paralysis Due to Aortic Aneurism. Dr. Hal. Foster, Kansas City, Mo.

5. An Unusual Case of Spontaneous Bilateral Hæmorrhage from the Ear. Dr. M. A. Goldstein, St. Louis, Mo.

6. Present Status of the Treatment of Mastoiditis. Dr. Geo. F. Keiper, LaFayette, Ind.

7. Middle Ear Affections in Tuberculosis. Dr. Robt. Levy, Denver, Col.

8. Pseudo-Torticolis, with Abnormal Associated Movements of the Head and Eyes. Dr. Eugene R. Lewis, Dubuque, Ia.

9. Tinnitus Aurium. Dr. Chas. S. Means, Columbus, O.

10. Some Cases of Asthma Treated by Removal of the Middle Turbinate. Dr. T. W. Moore, Huntington, W. Va.

11. The Principles of Rhinologic Practice. Dr. Edwin Pynchon, Chicago, Ill.

12. Inflammatory Conditions of the Upper Air Tract as they Occur in the Northwest. (By invitation.) Dr. Jac. E. Schadle, St. Paul, Minn.

13. Remarks on Etiology of Hypertrophic Rhinitis. (By invitation.) Dr. E. L. Shurley, Detroit, Mich.

14. A Discussion on the Differential Diagnosis and the Treatment of Osteo-Sclerosis of the Mastoid Process. Dr. O. J. Stein, Chicago, Ill.

15. Naso-Pharyngeal Fibroma—Exhibition of Photographs and Specimens. Dr. J. A. Stucky, Lexington, Ky.

ABSTRACTS FROM MEDICAL LITERATURE.

By W. A. SHOEMAKER, M.D.
ST. LOUIS, MO.

TEN INSTRUCTIVE CASES FOR THE GENERAL PRACTITIONER OF MEDICINE, WITH REMARKS UPON THE DETECTION AND RELIEF OF EYE STRAIN.

Ambrose L. Ranny (*New York Medical Journal*, Nov. 22, 1902) selected these ten cases to prove that a thorough examination and correction of all eye strain can cure, in some instances, cases that cannot be relieved by medication, and are apparently hopeless.

In Case 1 perfect recovery followed the relief of eye strain, after a diagnosis of cerebral softening had been made, and complete mental failure existed.

Case 2 shows that chronic diabetes may be caused by eye strain, and that relieving the eye strain may cause a disappearance of sugar in the urine.

Case 3 was one of severe periodical attacks of laryngeal spasm which at times seemed to imperil life.

Two cases illustrate the relationship between eye strain and neuralgia. One was orbital and the other was neuralgia of the stomach.

Eye strain as a cause of persistent reflex spasm of a group of muscles is illustrated.

Three cases of epilepsy are reported as cured by the relief of eye strain.

One case was emmetropic, the muscles being at fault. Another was relieved from convulsions for years by the wearing of glasses. The third case was one in which convulsions had persisted for twenty-four years. Proper treatment arrested the seizures, and the patient has remained well for over sixteen years.

AN OPERATION FOR PTERYGIUM.

McReynold's (*Jour. Amer. Med. Assn.*, Aug. 9, 1902) recommends the following modification of Desmarre's operation:

1. Grasp completely the neck of the pterygium with strong but narrow fixation forceps.

2. Pass a Graefe knife through the constriction and as

close to the globe as possible, and then with the cutting edge turned toward the cornea shave off every particle of the growth smoothly from the cornea.

3. With the fixation forceps still hold the pterygium, and with slender, straight scissors divide the conjunctiva and subconjunctival tissue along the *lower* margin of the pterygium, commencing at its neck and extending toward the canthus, a distance of one-fourth to one-half of an inch.

4. Still hold the pterygium with the forceps and separate the body of the growth from the sclera with any small, noncutting instrument.

5. Now separate well from the sclera the conjunctiva lying below the oblique incision made with the scissors.

6. Take black silk thread armed at each end with small curved needles and carry both of these needles through the apex of the pterygium from without inward and separated from each other by a sufficient amount of the growth to secure a firm hold.

7. Then carry these needles downward beneath the loosened conjunctiva lying below the oblique incision made by the scissors. The needles, after passing in parallel directions beneath the loosened lower segment of the conjunctiva until they reach the region of the lower fornix, should then emerge from beneath the conjunctiva at a distance of about one-eighth to one-fourth of an inch from each other.

8. Now, with the forceps lift up the loosened lower segment of conjunctiva and gently exert traction upon the free ends of the threads, which have emerged from below, and the pterygium will glide beneath the loosened lower segment of the conjunctiva, and the threads may then be tightened and tied and the surplus portions of thread cut off, leaving enough to facilitate the removal of the threads after proper union has occurred.

It is very important that no incision should be made along the upper border of the pterygium, because it would gap and leave a denuded space when downward traction is made upon the pterygium.

THE LOCAL USE OF IODINE IN CORNEAL ULCERS.

J. Lawton Hiers (*Phila. Med. Jour.*, Nov. 29, 1902) claims priority for the use of iodine in the treatment of ul-

cers of the cornea. Since he began this plan of treatment, in 1895, he has treated over two hundred cases with good results. The author thinks it lessens rather than increases scar tissue.

PRIMARY SARCOMA OF THE IRIS.

Casey A. Wood and Brown Pusey (*Archives of Ophthalmology*, July, 1902) in the histologic examination of forty-one cases found that the enucleated globe showed that the iris was not the only tissue involved. In following up cases that had been treated by iridectomy, evidences of the continued growth of the tumor were found in many patients.

As the result of their investigations, they do not agree with Fuchs who thinks that in certain cases iridectomy is all that is necessary, but advise an enucleation in every case in which a positive diagnosis of sarcoma of the iris has been made.

THE SYSTEMIC OR CONSTITUTIONAL CHARACTER OF GONORRHŒA, ILLUSTRATED BY FIVE CASES OF IRIDO-CHOROIDITIS.

Chas. Stedman Bull (*N. Y. Medical Record*, Dec. 20, 1902) refers to the gradually accumulating evidence of the constitutional character of the gonorrhœal infection, and finds that irido-choroiditis is not an uncommon complication, and must be regarded as directly connected with the urethritis.

"The iritis or choroiditis is very distinct from the usual type of rheumatic inflammation. It is very sudden in its onset, very rapid in its development, the pain is exceedingly severe, and the loss of vision is very rapid and complete. But the inflammatory process, though obstinate and subject to frequent relapses, eventually rapidly subsides, and usually leaves little or no trace behind it. There is almost never any gelatinous or fibrinous exudation in the anterior chamber, and the main cause of the rapid and marked deterioration of vision seems to be due to a general serous infiltration of the iris and choroid, and a diffuse serous exudation into the aqueous and vitreous humors, more marked in the latter. Posterior synechiæ do form, but they are readily broken, and as a rule, leave no trace behind on the anterior capsule of the lens. Such an iritis, or irido-choroiditis, is liable to relapse, even when no adhesions are present, whenever the patient

contracts another case of gonorrhœa. A neglected gonorrhœal iritis, in which multiple adhesions have been formed, may of course readily relapse, and in consequence of these relapses the symptoms of the disease gradually lose their peculiar character. The disappearance of the iritis under appropriate treatment, without leaving posterior synechiæ, proves the absence of the plastic character. Its prompt disappearance distinguishes it also from the usual form of serous iritis."

In the reported cases salicylate of soda in full doses was given. When it produced gastric disturbance salicylate of cinchonidia or iodide of potassium with quinine were substituted. Local treatment consisted of leeches to the temple, hot fomentations, and frequent instillations of a one per cent. solution of atropine and a two per cent. solution of cocaine.

THE ROLE OF THE TOXINS IN INFLAMMATION OF THE EYE.

Robert L. Randolph (*The American Journal of the Medical Sciences*, November, 1902) draws the following conclusions:

1. Bacterial toxins, so far as tested, when instilled even for many hours into the healthy conjunctival sac were found incapable of producing inflammation or causing other injury.

2. The same toxins when injected into the tissue of the conjunctiva or into the anterior chamber invariably set up local inflammation, the extent and intensity of the inflammation varying to some degree, according to the species of bacterium yielding the toxin.

3. Bacteria which had not previously been proven to produce soluble toxins were found to produce them even in young cultures, and it is suggested that injections of bacterial filtrates into the eye, particularly into the conjunctival tissue, constitute a more delicate biological test for the detection of certain toxins than the tests usually employed for this purpose.

4. The experiments recorded in this paper furnish additional examples, in a comparatively new field, of the importance of toxins in explaining the pathogenic action of bacteria, and likewise emphasize the etiological significance of injuries of the covering membrane of the eye in favoring the action of toxins and of bacteria.

JUVENILE CATARACT, WITH ESPECIAL REFERENCE TO THE LAMELLAR FORMS, WITH REPORT OF CASES.

Francis Alter (in a paper read before the Toledo Medical Association, Jan. 24, 1902) draws the following conclusions:

1. That rhachitis and congenital lues, to which may be added convulsions, play important roles in the production of this form of cataract.

2. That heredity, influenced by scrofula, congenital lues and rachitis, plays a most important part in the formation of this variety of cataract. That it seems to impart a dyscrasia distinctly meso-epiblastic in character, as is evidenced by a more or less simultaneous degeneration of the crystalline lenses, the teeth and the bones, the latter usually taking the form of craniotabetic malformation or degeneration.

3. That the theory of the production of this form of cataract by a sort of massage of the soft, newly formed lens fibres against the comparatively hard nucleus, this process being superinduced by convulsions (violent spasm of the ciliary muscles), is untenable and not worthy of serious scientific consideration.

4. That an early operation offers the best results. It forestalls the development of an amblyopia exanopsia, and effectually blocks the development of a myopia, with its possible baneful accompaniments.

5. That discission should be the operation of choice, preferably a crucial incision with some lenticular implantation of the knife; the instrument of greatest value being the smallest size knife needle of Knapp's.

6. Complications should be promptly met. First by paracentesis, or, if necessary, by simple linear extraction or exceptionally, by the removal of the lens in toto either by the simple or the combined method.

7. The possibility of this form of cataract becoming total, coupled with the probability of its being made the subject of a cholesterin or calcareous deposit, thereby adding an additional menace to the eye, greatly complicating a future discission or extraction, if needed, places iridectomy in these cases in the realm of doubtful surgery.

8. That full dilatation of pupils with atropine must be secured and maintained, and that atropine, coupled with the

more or less continuous use of iced cloths, are the two medical essentials in the after treatment of these cases.

9. That the use of refrigeration is a most potent weapon in combating the too violent operative reaction. Its use very effectually limits the too violent swelling and the subsequent too abundant extrusion of lens fibres, thereby helping very materially in annulling the possibility of occurrence of two of the most important complications—glaucoma and irido-cyclitis.

HOT AND COLD WATER IN EYE DISEASES.

W. O. Nance (*Medical Standard*) discusses the employment of hydro-therapeutic measures in the treatment of diseases of the eye, and makes the following observations:

1. Heat and cold are best applied to the eyes by means of moist pads. They are more efficacious when employed in this manner than by means of the coil or bladder, in that their action is more penetrating, and their effect is more germicidal.

2. The application of heat is indicated in degenerative corneal process—interstitial and phlyctenular keratitis, corneal ulcers, pannus, infected corneal wounds, suppurative panophthalmitis, in iritis and cyclitis, in muscular spasm, and in contusion and ecchymosis of the lids (black eye) to hasten the absorption of extravasated blood.

3. The application should be of the highest temperature the patient can endure (110 to 135) for a period of fifteen minutes, and repeated at intervals of two or three hours for several hours.

4. Cold is indicated in hyperemia and inflammations of the conjunctiva. In purulent conjunctivitis it is the remedy par excellence. In traumatisms, especially those of the iris and lens and in the early treatment of contusions of the lids its employment is of value.

5. In purulent conjunctivitis iced applications may be continuously used for many hours so long as the cornea remains unimpaired, in which instance they are positively contraindicated.

6. Hot applications greatly assist the rapid absorption of various medicaments employed in ophthalmic practice, and when used for this purpose should immediately precede the instillations of such solutions.

OBITUARY.

PHOTINOS PANAS.

Dr. Photinos Panas, member of the Academy of Medicine, honorary professor in the Faculty of Medicine, officer of the Legion of Honor, honorary surgeon to the hospitals, died on the 6th of January at his home at Roissy (Seine and Marne), at the age of 71 years.

He was borne of Greek parentage at Cephalonia (Ionian Islands) on Jan. 30, 1832. While quite young he came to Paris to study medicine; in 1854 he was made interne of the hospitals of Paris; given the gold medal of the Faculty in 1856; made assistant in 1859 and prosector of anatomy in 1861. He passed a brilliant examination on March 3, 1860, with an inaugural thesis which showed his predilection for the special branch of medicine in which he became a master (anatomy of the nasal cavities and the lacrimal passages).

Being naturalized in France he was made assistant professor in the section of surgery in 1863 with a thesis on "Vicious Cicatrization and the Means of Preventing It," and in the same year surgeon of the central Bureau (1863-64). Dr. Panas was in charge of surgical work in nearly all of the hospitals. Bicêtre (1865); Lourcine (1865 to 1866); Midi (1867); Saint-Antoine (1868); Saint-Louis (1869-72); Lariboisière (1873); Hôtel Dieu (1879-1901).

His work was of the most varied.

In 1859 to 1863 he gave in the École pratique a course on anatomy and operative medicine, and furthermore, public courses on surgical anatomy (1859); on the physiology of the nervous system and the organs of sense (1860); on external pathology (1861); syphilographic clinics at Lourcine (1866); and surgical clinics at Saint Antoine (1868).

As the first in the hospitals of Paris, he performed successfully an ovariotomy in the isolation pavillon of Saint Louis (1870).

In Lariboisière, from 1873 to 1878, he continued to give his clinical lessons on ophthalmology which he had started at

the Bureau central 1869, and at the Saint Louis at the same time while he was in charge of three surgical wards.

At this time he practiced, as one of the first, Lister's method, thanks to which he obtained remarkable results in arthrotomies, congestive abscess, fractures of the radius, strangulated hernia and amputation of the breast.

From 1872 to 1878 he gave a complimentary course in ophthalmology at the Faculty, and when the chair of clinical ophthalmology was created in 1879 he was called to it.

He had only recently retired, in 1901. Dr. Panas was a specialist in diseases of the eye. His great knowledge in this branch and his success made him a well known and highly appreciated physician the world over.

He leaves numerous works. Among them: An edition of Malgaigne's lectures on orthopædics (1862); numerous memoirs on the anatomy, physiology, pathology and operative medicine of the joints in general, and especially of the shoulder-joint and knee-joint; a paper on the so-called rheumatic paralysis of the radial nerve; the article on orthopædics in the dictionary of practical medicine and surgery; a memoir on the paralysis of the cubital nerve due to pressure; some highly praised works, as: Lectures on strabismus (1873); lectures on keratitis (1876); lectures on the affections of the lacrimal apparatus (1877); lectures on retinitis (1878); lectures on the inflammatory diseases of the deep membranes of the eye (1878); pathological anatomy of the eye, with Dr. Reney (1879); complete treatise on the diseases of the eye (two volumes, 1894).

Dr. Panas founded the *Archives d' Ophtalmologie* in 1880. He was elected a member of the Academy of Medicine, in the section of surgical pathology, on December 18, 1877, and was its president in 1899. This excellent professor, made Knight of the Legion of Honor February 22, 1871, was promoted to officership April 19, 1895. He was a member of the surgical society since 1865, and honorary member since 1888, having been its president in 1887.

Although at heart a good Frenchman—he showed it in 1870—Dr. Panas never forgot the country of his birth. Thus, when the last war between Greece and Turkey broke out he immediately organized in Paris an ambulance corps which rendered the greatest services.

Professor Panas takes with him the regrets of all who knew him. He was an amiable scientist and a good man.—*Gazette Médicale de Paris.*

BOOK REVIEWS.

UNIVERSAL TEST CHARACTERS, PARTICULARLY APPLICABLE AS VISUAL TESTS FOR CHILDREN. (With 14 Engraved Plates). By ARTHUR E. EWING, M.D. St. Louis: *Nixon-Jones Printing Co.* 1902.

We wish to draw the attention of our readers to these practical, well selected and beautifully executed test figures for the examination of the vision of children and analphabets after the scale of Snellen. Whosoever has had occasion to examine children frequently knows with what difficulties we have to contend in the use of the few test figures thus far published by Snellen and others. Dr. Ewing's figures consist of a cross, horseshoe, square, circle, chair, rocking chair, pitcher, star, heart, mug and teapot, all of them objects easily recognized and named by small children even. It seems the oculists should be very thankful to Dr. Ewing for his painstaking labor in bringing out this aid to our equipment for useful and successful work.

GRUNDRISS DER PATHOLOGISCHEN HISTOLOGIE DES AUGES. (TEXT-BOOK ON THE PATHOLOGICAL HISTOLOGY OF THE EYE). By DR. SIGMUND GINSBERG. With 107 Illustrations. Berlin: *S. Karger.* 1903.

Whoever is engaged in or simply interested in the pathological histology of the eye should possess this book, which is decided to fill a gap which its predecessor (the reviewer's own book) has long been unable to fill. To be sure, it is a rather difficult undertaking to write at this stage such a text-book, the more praise that the author has succeeded so well. We should have liked to see a few more references to the work of others, especially to work done in this country. We might also wish that the illustrations were still better than most of them are—but these are minor points. The book is good and highly to be recommended. ALT.